

1 What is claimed is:

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3 1. A dishwasher comprising:
4 a washing chamber;
5 top and bottom nozzles injecting water in the washing chamber;
6 a sump provided under the washing chamber to store the water;
7 a pump pumping the water stored in the sump;
8 a supply pipe adjacent to one side of the pump wherein the water pumped by the
9 pump flows in the supply pipe;
10 upper and lower pipes leading the water to the top and bottom nozzles, respectively;

11 and

12 a valve assembly connecting the supply pipe to the upper and lower pipes to
13 selectively open/close the upper or lower pipe using a pressure of the pumped water.
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15 2. The dishwasher as claimed in claim 1, the driving valve assembly
16 comprising:

17 a guide having an inlet hole connected to the supply pipe at top, the guide having first
18 and second holes connected to the upper and lower pipes, respectively formed at a bottom, the
19 guide having an inner passage circulating inside; and

20 a ball moving along the inner passage to selectively open/close the first or second
21 outlet hole.
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23 3. The dishwasher as claimed in claim 2, wherein a diameter of the ball is
24 greater than that of each of the inlet hole and the first and second outlet holes.

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26 4. The dishwasher as claimed in claim 2, the guide comprising:

27 a first guide having the inlet hole; and

28 a second guide having the first and second holes.
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30 5. The dishwasher as claimed in claim 4, wherein a rib protrudes upward from a
31 circumference of the first guide and a groove is formed in a circumference of the second
32 guide to be coupled to the rib.
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34 6. The dishwasher as claimed in claim 4, wherein a diameter of the ball is
35 greater than that of each of the inlet hole and the first and second outlet holes.
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37 7. The dishwasher as claimed in claim 2, wherein the inner passage is so slant
38 that the ball can move in one direction.
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40 8. The dishwasher as claimed in claim 7, the inner passage comprising:
41 a first passage slant upward from the inlet hole toward the first outlet hole;
42 a second passage slant upward from the first outlet hole toward the second outlet
43 hole; and
44 a third passage slant downward from the second outlet hole toward the inlet hole .
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46 9. The dishwasher as claimed in claim 8, wherein a first step is formed on an upper
47 inside of the guide to prevent the ball lying at the inlet hole from moving toward the third
48 passage by the pressure of the water.

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50 10. The dishwasher as claimed in claim 8, wherein a second step is formed on a
51 lower inside of the guide to prevent the ball lying at a lower side of the first outlet hole from
52 moving along the first passage.

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54 11. The dishwasher as claimed in claim 8, wherein a third step is formed on a
55 lower inside of the guide to prevent the ball lying at a lower side of the second outlet hole
56 from moving along the second passage.

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58 12. The dishwasher as claimed in claim 8, wherein a protrusion is formed
59 between the first and second outlet holes to prevent the ball blocking the first outlet hole from
60 moving to the second outlet hole along the second passage.